



University of Crete
Department of Physics

40 Years Anniversary Colloquium Series

Thursday, 6 December 2018 | 17:00 – 18:00, Seminar Room, 3rd floor

Galaxy Evolution; From Cosmic Dawn to Cosmic Dusk

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ABSTRACT

Most of the action in our Cosmos is taking place inside galaxies, which are huge agglomerations of billions of stars and of colossal amounts of gas and dust. The current picture suggests that galaxies grow by using their gas (mostly Hydrogen) to make new stars. In their turn, stars convert hydrogen into heavier elements that are eventually expelled into the galactic environment in the form of metals and dust through stellar winds and cataclysmic super nova explosions.

In this talk I will discuss how studying this cycle of galactic life in galaxies at ever increasing distances has revealed an elegant and coherent paradigm of galaxy evolution over the last 11 billion years. Finally I will discuss how the upcoming synergies between the most powerful telescopes ever built (ALMA, JWST, Euclid, E-ELT), will enable for the first time the exploration of the final frontier in observational astrophysics, i.e. the epoch of cosmic dawn.